



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,606	06/26/2003	Ki Bok Park	42168-0003	2885
26633	7590	09/19/2005	EXAMINER	
HELLER EHRMAN WHITE & MCAULIFFE LLP 1717 RHODE ISLAND AVE, NW WASHINGTON, DC 20036-3001			SCHECHTER, ANDREW M	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/603,606

Applicant(s)

PARK, KI BOK

Examiner

Andrew Schechter

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 1,3 and 5-11 is/are allowed.
6) ☒ Claim(s) 12 and 14-18 is/are rejected.
7) ☒ Claim(s) 13,19 and 20 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 26 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 21 June 2005 has been entered.

Claim Objections

2. Claim 13 is objected to because of the following informalities: "the plurality of opposing vent openings" has no appropriate antecedent; it is assumed that "each of the plurality of venting portions includes a plurality of opposing vent openings" is meant to be recited. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2871

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 12 and 14-18 are rejected under 35 U.S.C. 102(e) as being anticipated by *Asakura et al.*, U.S. Patent No. 6,531,329.

Asakura discloses [see Figs. 1-3, for instance] a liquid crystal display device comprising first and second substrates [2, 3], a seal pattern [8] disposed between outer peripheral portions of the first and second substrates, and a plurality of venting portions [H₅-H₈] formed in the seal pattern at corner portions of the first and second substrates for venting air confined between the first and second substrates, wherein each of the plurality of venting portions are aligned in a direction of a corner of the first and second substrates. Claim 12 is therefore anticipated.

The air [11] surrounded by the seal pattern is discharged through each of the plurality of venting portions during bonding of the first and second substrates, so claim 14 is also anticipated. (It is noted that claim 14 recites a product-by-process limitation, see MPEP 2113, which is only limited to the structure implied by the steps, not the steps themselves, and the steps do not limit the structure, so the claim would be anticipated in any event.) A width of the seal pattern is given as 0.3 mm [col. 11, line 58-59], so claim 15 is also anticipated.

Asakura also discloses a method of manufacturing a liquid crystal display device comprising providing first and second substrates [2, 3], forming a seal pattern [8] along

an outer peripheral surface of the first substrate, the seal pattern configured such that a seal line is discontinuous at each corner of the first and second substrates [see Fig. 1] to form a plurality of venting portions [H₅-H₈] from the seal pattern ["from" is interpreted to mean "made out of the material of the seal pattern", rather than "extending from the seal pattern" as was explicitly recited in claim 7], wherein each of the plurality of venting portions are aligned in a direction of a corner of the first and second substrates, and adhering the first substrate having the seal pattern formed thereon with the second substrate. Claim 16 is therefore anticipated as well.

An area of the seal line at each corner of the seal pattern increases (so as to connect them together) during the adhering of the first and second substrates [see Figs. 2D, 2E], so claim 17 is also anticipated. The method further comprises dropping liquid crystal [4a] into an inner region of the seal pattern formed in the first substrate [col. 9, lines 62ff.], so claim 18 is also anticipated.

Allowable Subject Matter

5. Claims 13, 19, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claims 1, 3, and 5-11 are allowed.
7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose the device of claim 1, in particular the limitation that each of the plurality of venting portions formed at the corner portions of the first and second substrates include a plurality of opposing vent openings [as shown in Figs. 3 and 7]. (U.S. Patent No. 6,678,029 to *Suzuki* discloses [see Fig. 7, for instance] a plurality of venting portions formed in the seal pattern at corner portions, each including a plurality of vent openings, but the vent openings are oriented at right angles to each other, not opposed as recited in claim 1.) Claim 1 is therefore allowed, as are dependent claims 3, 5, and 6.

Similarly, the prior art does not disclose the method of making an LCD of claim 7, in particular the limitation that each of the plurality of venting portions formed at the corner portions include a plurality of opposing vent openings. Claim 7 is therefore allowed, as are dependent claims 8-11.

Similarly, claim 13 (with the assumed change discussed in the objection above) recites the additional limitation of each venting portion having a plurality of opposing vent openings, so claim 13 would be allowable if rewritten appropriately.

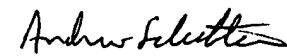
The prior art does not disclose the method of claim 19, in particular the limitations that the seal has venting portions at each corner, each aligned in a direction of a corner, and also at least one liquid crystal injection hole. *Asakura* does not disclose an injection hole, and *Suzuki*, for instance, which does disclose an injection hole, does not disclose venting portions at each corner aligned in a direction of a corner. Claim 19 would therefore be allowable if rewritten appropriately, as would claim 20 which depends from it.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (571) 272-2302. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Andrew Schechter
Primary Examiner
Technology Center 2800
14 September 2005